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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,409	10/26/2006	Paolo Buscema	09SKF106	4575

39232   7590   11/04/2009

Themis Law
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EXAMINER
HOANG, SON T

ART UNIT	PAPER NUMBER
2165	

NOTIFICATION DATE	DELIVERY MODE
11/04/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

contact@themisipc.com

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED <u>22 October 2009</u> FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

    a) ☒ The period for reply expires <u>03</u> months from the mailing date of the final rejection.

    b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

        Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

<u>NOTICE OF APPEAL</u>

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

<u>AMENDMENTS</u>

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will <u>not</u> be entered because

    (a)☐ They raise new issues that would require further consideration and/or search (see NOTE below);

    (b)☐ They raise the issue of new matter (see NOTE below);

    (c)☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

    (d)☐ They present additional claims without canceling a corresponding number of finally rejected claims.

        NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): _____.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

    The status of the claim(s) is (or will be) as follows:

    Claim(s) allowed: *None*.

    Claim(s) objected to: *None*.

    Claim(s) rejected: *72-142*.

    Claim(s) withdrawn from consideration: *None*.

<u>AFFIDAVIT OR OTHER EVIDENCE</u>

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will <u>not</u> be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will <u>not</u> be entered because the affidavit or other evidence failed to overcome <u>all</u> rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

<u>REQUEST FOR RECONSIDERATION/OTHER</u>

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: <u>See Continuation Sheet.</u>

12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____

13. ☐ Other: _____.

  /Neveen Abel-Jalil/
  Supervisory Patent Examiner, Art Unit 2165

Continuation of 11. does NOT place the application in condition for allowance because:

First, Applicant's arguments towards claim 72 regarding the fact that the combination of Agrafiotis and Shmulevic does not teach "calculating the matrix of distances between each record in the database using said metric function" using a global network.

The Examiner respectfully disagrees to the above remark. Accordingly, the claimed language of claim 72 does not mention what network environment the invention is implemented in. Thus, Agrafiotis clearly teaches the claimed "calculating the matrix of distances between each record in the database using said metric function" as described in paragraph [0096]-[0097].

Second, Applicant's arguments towards claim 72 regarding the fact that the combination of Agrafiotis and Shmulevic does not teach "calculating the N-1 coordinates of each record in the N-1 dimensional space using an evolutionary algorithm, wherein in said evolutionary algorithm the number of marriages and of mutations of individuals are adaptive self-definable internal variables".

The Examiner respecfully disagrees with the above remarks. Accordingly, Agraiotis teaches calculating the N-1 coordinates of each record in the N-1 dimensional space using an evolutionary algorithm (coordinates of a plurality of objects on the m-dimensional nonlinear map are determined by the algorithm described in [0050]-[0053]), and Shmulevic then teaches wherein in said evolutionary algorithm the number of marriages and of mutations of individuals are adaptive self-definable internal variables (Suppose that any gene out of n possible genes, can get mutated with probability p, independently of other genes. In the Boolean setting, this is represented by a flip of value from 1 to 0 or vice versa and directly corresponds to the bit-flipping mutation operator in NK Landscapes, as well as in genetic algorithms and evolutionary computing. For Boolean networks, such random gene perturbations can be implemented with the popular DDLab software, [0124]). The concept of evolutionary algorithm wherein the number of marriages and mutations of individual are adaptive self-definable internal variables is a well-known fact in any evolutionary algorithm, hence, the evolutionary algorithm taught by Shmulevic can also be applied conceptually with Agrafiotis.

Third, Applicant's argument towards claim 72 regarding the fact that the combination of Agrafiotis and Shmulevic does not teach defining a best projection of the records onto the N-1 dimensional space as a projection in which a distance matrix of the records in the N-1 dimensional space best fits or has minimum differences with the distance matrix of the records calculated in the N-dimensional space.

The Examiner respectfully disagrees with the above remark. Accordingly, Agrafiotis teaches defining a best projection of the records onto the N-1 dimensional space as a projection in which a distance matrix of the records in the N-1 dimensional space best fits or has minimum differences with the distance matrix of the records calculated in the N-dimensional space (Note that new patterns in Rn that not in the original input set can also be projected into Rm in the manner shown in Figure 6. Once the system is trained, new patterns in Rn are mapped by identifying the nearest local network and using that network in a feed-forward manner to perform the projection. The input for the system is a pattern 705 in Rn. This point is defined by its n attributes, x is x2, . . . xn). The system includes a dispatcher module 710, which compares the distance of the input point to the network centers (i.e., the reference points), and forwards the input point to one of the available local neural networks 701, 702, or 703. Specifically, the input pattern is sent to the local neural network associated with the reference point nearest to the input pattern. The chosen network then performs the final projection, resulting in an output point in Rm, [0110]).

Fourth, Applicant's argument towards claim 72 regarding the fact there is no motivation to combine Agrafiotis and Shmulevic.

The Examiner respectfully disagrees with the above remark. Accordingly, Agrafiotis teaches mapping n-dimensional input patterns into an m-dimensional space so as to preserve relationships that may exist in the n-dimensional space in a network (Abstract), and Shmulevic teaches mapping of n-dimensional input to (n-1)-dimensional space ([0116]) for establishing and modeling a regulatory relationship between nodes of a network ([0002]). Thus, it is well obvious that Agrafiotis and Shmulevic can be combined as described in the Office action mailed on July 30, 2009.

Claims 73-142's rejections are also maintained for the at least reasons presented above.

Since Applicant's arguments have been fully considered and are not persuasive. Rejections of the Final Office action mailed on July 30, 2009 are hereby sustained.

/S. T. H./
Examiner, Art Unit 2165